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IN REPLY REFER TO

AGAM-P (M) (2 July 68) FOR OT RD 682198 8 July 1968  
SUBJECT: Operational Report - Lessons Learned, Headquarters, 84th  
Engineer Battalion (Const), Period Ending 30 April 1968 (U)

STATEMENT IS UNCLASSIFIED

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with paragraph 5b, AR 525-15. Evaluations and corrective actions should  
be reported to ACSFOR OT RD, Operational Reports Branch, within 90 days  
of receipt of covering letter.

AD 2. Information contained in this report is provided to insure appropriate  
benefits in the future from lessons learned during current  
operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

1 Incl  
as

*Kenneth G. Wickham*

KENNETH G. WICKHAM  
Major General, USA  
The Adjutant General

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84th Engr Bn (CONST)

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DEPARTMENT OF THE ARMY  
HEADQUARTERS, 84TH ENGINEER BATTALION (CONSTRUCTION)  
APO 96238

EGA-EB-CO

14 May 1968

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

THRU: Commanding Officer  
35th Engineer Group (Const)  
APO 96238

Commanding General  
18th Engineer Brigade  
APO 96377

Commanding General  
~~US Army Engineer Command, Vietnam (PROV)~~ *7/11*  
~~APO 96375~~

Commanding General  
United States Army, Vietnam  
ATTN: AVHCC (DST)  
APO 96375

Commander in Chief  
United States Army Pacific  
ATTN: CPOP-OT  
APO 96550

TO: Assistant Chief of Staff for Force Development  
Department of the Army (ACSFOR DA)  
Washington D.C. 20310

FOR OT R  
682198

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EGA-BB-CO

14 May 1968

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

### Section 1. Significant Organization or Unit Activities.

#### a. Command

##### (1) Organization

(a) Headquarters & HQ Co, 84th Engr Bn

(b) Co A, 84th Engr. Bn

(c) Co B, 84th Engr. Bn

(d) Co C, 84th Engr. Bn

(e) Co D, 84th Engr. Bn

Earthmoving Plt of Co D became attached to 39th Engr Bn  
for an indefinite TDY period on 18 March 1968

(f) 513th Engr. Co (DT)

(g) 523rd Engr. Co (PC)

Unit came under this command 15 March 1968

(h) 3rd Platoon, 517th Engr Co (LE)

Unit departed this command on 3 Feb 1968

##### (2) Unit Operations

(a) HQ & HQ Co: The utilities section, augmented with Vietnamese laborers continued work on the improvement of the Camp Williams Cantonment area. Construction included a new 2400 SF mess hall, wash stand for EM, new bunkers for S-1 and S-3, and improvement of the perimeter defenses to include clearing fields of fire and building two man emplacements. Also improvement of the motor pool area was completed to include drainage, a wash rack, and a grease rack.

(b) Company A: The efforts of Company A included the maintenance and repair of battalion ordnance and Engineer equipment, the production of rock, and the distribution of asphalt to improve LOC's. Some of the major accomplishments this quarter included: paving of 3 KM on Valley A road, surfacing 55,000 SY of storage area at the Qui Nhon Port Transit Storage Area, surfacing 9000 SY of storage and parking area at Phu Tai Maintenance complex with MC 30 and MC 70 compound, and the production of 62,791 tons of crushed rock.

(c) Company B: This unit moved from Phu Tai to LZ Uplift on 12 Feb. The major effort of B company was the upgrading of QL#1 highway from Phu My to Bong Son.

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EGA-BB-C)

14 May 1968

SUBJECT: Operational Report of 64th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65

This consisted of widening of the road, construction of culverts to include headwalls and wingwalls, construction of 3 bridges, preparing the subgrade of the existing road for asphaltic concrete surface, and maintenance and repair of existing bridges and highway. B Company completed portions of two cantonment areas at Phu Cat Air Base for the 41st Artillery Group and supported LZ's Ivy, Ginny, Crystal, Salam, Pony, and Uplift by clearing fields of fire and constructing gun emplacements, bunkers, sump pits, and ammo pads. This company also provided a daily mine sweep of roads in their AOR.

(d) Company C: Company C accomplished a variety of projects during this period. The Port Maintenance Building was completed which included a metal 40'x100' Pascoo building set on 3'3" reinforced concrete columns and 25,000 SF of prepared hardstand parking area. The transit storage hardstand area of 55,000 SY of prepared subgrade base and drainage was completed at Port Facilities, Qui Nhon. A water fill point at Phu Tai was also completed which included the assembly of a pre-fabricated 250 barrel metal tank on a pre-engineered steel tower, construction of two fill stands to accommodate two 5,000 gallon water tankers simultaneously and 15,000 SF of hardstand driveway. Other projects that were completed during this period were the building of 20 revetments for aircraft at QNAAF, 9000 SY of hardstand area at Phu Tai Maintenance complex, 120' medium tent frames for 173rd ABN BDE, and construction of a 20'x16' communications building with two 80' antenna masts on Vung Chua mountain. Company C also participated in operational support of a joint Korean and U.S. operation north of Qui Nhon by upgrading Route 442 for tank traffic. An 80'x40' refrigerator warehouse at the Qui Nhon depot facility was started this quarter.

(e) Company D: Efforts of Company D during this quarter centered around construction of Phase I of QL#1 south of Phu Tai and continued work at Long My Depot. D Company played a principal role in the security of Qui Nhon during and after the recent TET offensive. Company D was dug in on a strategic hill west of Qui Nhon with the primary mission of infantry support from 9 Feb to 29 Feb. Work completed during this period was a roof shed and eight of sixteen concrete pads for the cantonment area at Long My Depot. Lifting, hauling, preparing subgrade and base, and constructing culvert headwalls, and wingwalls on QL#1 south of Phu Tai continued. Electrical work on the Butler warehouses at Long My depot also continued through this period. The ADPS building at Long My depot, a 70'x144' air conditioned wooden and reinforced concrete structure, was begun this quarter. D Company's Earthmoving Platoon on 18 March was attached for operational control of the 39th Eng Bn (Combat) for the purpose of upgrading QL#1 North of Mo'Luc. This attachment remained in effect throughout this quarter.

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(f) 523rd Engineer Company (PC): The major effort in construction this period was the completion of Tank Farm Number 3 at Qui Nhon and causeway bridge No. 2 at the Qui Nhon port. The Tank farm construction included (3) 50,000 BBL welded steel tanks, (4) 10,000 BBL welded steel tanks, berms for fire walls, piping, manifold system, and painting of the tanks. A variety of other projects this quarter were undertaken, including upgrading the flight control tower at Lano Army Airfield, diving support for the 5th Terminal Command, hauling and driving piles for the 589th Engr. Bn (Const) at Bridges 19-11 and 19-26, maintenance of LST beach, and repair of Bridge QL-1-322.

(g) 513th Engineer Company (DT): During this period the 513th Engr Company gave dump truck support to this Battalion for hauling rock and construction materials and supported the move of the 35th Engr Bn and the 45th Engr Group. On 20 March, the 513th Engr Company (DT) came under operational control of the 937th Engineer Group.

b. Personnel, Administration, Morale, and Discipline: During this reporting period the battalion continued its record of over 90% participation in the Savings Bond program while Soldiers Deposits held at 13%. There were a total of 103 people recommended for an award for outstanding performance. The battalion suffered 21 casualties and 3 battle deaths in this quarter. A total of 44 men extended their tours in Vietnam during this quarter.

c. Intelligence and Counter Intelligence: Upon the initiation of the VC/NVA TET offensive, the Battalion became extensively engaged in the defense of the Qui Nhon Installation, initially deploying two companies as provisional infantry. In addition, both base camp security and the provisional platoon controlled by this Headquarters on Ke Sain Mountain were greatly increased to counter the enemy threat. Those commitments, except the provisional platoon were gradually reduced near the end of February and the Battalion returned to its normal mission. The Headquarters and C Company Compound was attacked on two occasions: On 3 February, the compound was attacked by a squad size sapper unit resulting in two friendly killed and two friendly wounded. On 26 February, the compound was again attacked by a squad size sapper unit in coordination with an attack on the local ARVN ASP. This attack resulted in two enemy killed with no friendly casualties. On 11 February, a minor mortar attack on the Phu Tai Crusher Quarry Complex resulted in one friendly killed. Numerous enemy incidents of LOC interdiction and work party harassing fires resulted in sixteen friendly wounded and five bridges destroyed. Total casualties for the period were: Three friendly killed and eighteen friendly wounded and two enemy killed. Good intelligence liaison continued to be maintained by this unit with the Capital BOK Infantry Division, 22nd ARVN Infantry Division, 5th Special Forces, Binh Dinh Province, and other combat and support units in the area.

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EGA-BB-CO

14 May 1960

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

d. Plans, Operations, and Training: Increased security requirements and operational support missions resulting from increased enemy activities during TET cut into the construction resources of the battalion. Two companies were organized and committed as Infantry units, one for two days and one for 3 weeks. In early February the AOR for this Battalion was extended considerably and effort was diverted from Base Development construction to LOC work. Planning was accomplished for a greater percentage of effort to be given to LOC work in the coming quarter. Training during this period emphasized OJT of many newly assigned personnel and weapons firing for all personnel.

e. Logistics: An intensive follow-up procedure on all types of requisitions has disclosed that a large percentage of all requisitions submitted are lost in supply channels. Because of the close liaison and willing cooperation with supply personnel these lost requisitions are becoming known almost immediately and new requests are being submitted. According to the director of supply a new accounting system is being installed and it should alleviate this problem. There are still critical shortages of TOE items which are all on valid requisitions and are being checked constantly. Many board feet of "two-by" lumber are on request and may, in the near future, become critical. An average of 350 requisitions were processed each week of the reported quarter. The battalion consumed in excess of 130,000 gallons of mogas and 140,000 gallons of diesel.

f. Force Development: N/A

g. Command Management: N/A

h. Inspector General: N/A

i. Civic Affairs: During this reporting period the battalion undertook a variety of civic action projects. The members of this battalion voluntarily contributed 138,575VN\$ for the support of the Holy Infant Orphanage and the Kim Chau Orphanage. The Battalion also provided materials and technical assistance for the construction of a 20x60 medical ward for the refugee center located at coordinate, CROO3258. This medical ward is now complete and in operation. It contains a complete water and electrical system. Also during this period, the Kim Chau Orphanage was provided with a 12x16 shower facility and 3000 gallon water tower. When this project was completed, the kitchen, aid room, and shower all had running water. The battalion has also continued to provide an NCO to the Qui Nhon Public works department to provide technical assistance for the city's engineering projects and to act as a liaison between the 84th and the City of Qui Nhon.

Section 2, Part I, Observations (Lessons Learned)

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Battalion: None

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14 May 1963

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RGS CSFOR (RL)

### b. Operations:

1. Item: Expedient Repair of a Two inch Hole in the Side of a Welded Steel Tank.

Discussion: During the 1968 TET offensive one of the 50,000 BBL tanks at Tank Farm No. 3 was struck by a B-40 rocket. The impact of the round created a two inch diameter hole in the side of the tank approximately fifteen feet above the floor. Since the tank contained eleven feet of JP-4 Jet Fuel at the time it was impossible to repair the hole by welding unless the tank was drained and flushed. It was decided that an expedient method of repair could eliminate the delay caused by draining of the tank. The method decided upon was to use a four inch square steel plate coated with neoprene and bolted to the outside of the tank with a "Molly Bolt" inserted through the hole. This method of repair took only two hours to repair and the tank has been filled to full capacity on several occasions since the hole was plugged.

Observations: This fabricated plug is a quick and expedient way of repairing tanks and saving the contents. To date there have been no traces of seepage from this hole.

2. Item: Culvert Jacking Post

Discussion: During the process of expanding culvert to accommodate struts, wooden jacking posts frequently slipped or buckled causing severe danger to the personnel inside the CMP. A metal post was developed to enclose both the upper sill and the jack post to prevent failure during the jacking process. Inclosure 1 outlines the assembly details of the jacking post and the correct operation of the unit. Different lengths must be made for each size CMP (48" 60" 72"). A telescoping unit would not be advisable unless close tolerances could be obtained between the telescoping tubes to prevent buckling.

Observations: The additional time and equipment needed to fabricate jacking posts would be fruitful because the unit both speeds assembly of culvert struts and reduces the hazard of failing wooden jacking post.

3. Item: A-Frame type Airfield Revetment Ties

Discussion: The original design of the standard A frame type Airfield-Aircraft Revetment requires wire ties to keep the walers in the proper position. The use of 1/2" to 5/8" banding material in conjunction with a banding machine to tie the walers together through the A frame was used in place of the tie wire to decrease the time element in construction.

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EGA-BB-CO

14 May 1968

SUBJECT: Operational Report of 64th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, PCS CSFOR-65 (R1)

Observation: The use of banding material cuts the construction time for this phase considerably thus a great saving in manpower cost.

4. Item: Use of CH 47 Helicopter for construction in inaccessible places.

Discussion: The construction of a communications facility on Vung Chua mountain included the setting of two 80' Class A telephone poles for an antenna mast. The site was inaccessible to any type of lifting equipment since it was on the peak of the mountain. It was decided to try and set the antenna mast by helicopter. The mast was assembled on the ground by tying the two 30' poles together as called for in the plans for construction, placing the steps on the poles and fastening the ground guys and wrapping them around the poles before placement. The ground anchorage was built and holes for the two pole base were dug. The entire mast was lifted by a CH 47 helicopter and set in place. As soon as the aircraft lowered the mast into the base holes the guys were unwrapped and fastened to the ground anchorage system that was in place. The setting of the mast by the CH 47 took less than one hour.

Observations: The use of air support in the construction effort can greatly reduce time and cost of construction in inaccessible locations. Precise prior planning and having all phases such as guy wires tag lines and anchorage systems all in place is absolutely necessary to make the operation worthwhile and run smoothly.

c. Training: None

d. Intelligence: None

e. Logistics

1. Item: Conveyor Belt Drive on 225 TPH Rock Crusher

Discussion: It was noted during operation that the integral conveyor did not move fast enough to prevent rock from piling up and slowing down the jaws. It was discovered that a right angle drive in the propelling shaft had a reduction assembly that could be switched to increase shaft speed.

Observation: A right angle reduction drive can be switched in the 225 Primary Crusher to increase the speed of the integral belt conveyor.

g. Other: None

Section 2 Part II Recommendations

7

None

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14 May 1968

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

*Ralph T Garver*

RALPH T. GARVER  
LTC, CE

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2 copies to USARPAC  
8 copies to 18th Engr Bde  
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EGA-3 (30 April 1968) 1st Ind Maj Pierce/dlj/2003  
SUBJECT: Operational Report - Lessons Learned (RCS-CSFOR-65)(R-1) for  
Quarterly Period ending 30 April 1968.

DA, HQ, 35th Engineer Group, APO 96238, 20 May 1968.

TO: Commanding General, 18th Engineer Brigade, ATTN: AVBC-C, APO 96377

The Operational Report - Lessons Learned submitted by the 84th Engineer Battalion (Const) has been reviewed by this headquarters and is considered an excellent summary of the Battalion's operations during the reporting period ending 30 April 1968. This headquarters concurs with the remarks of the Battalion Commander.



JOHN A. HUGHES  
Colonel, CE  
Commanding

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11 JUN 1968

AVBC-C (14 May 1968) 2nd Ind

SUBJECT: Operational Report of the 84th Engineer Battalion (Construction)  
for the period ending 30 April 1968, RCS CSFOR-65 (R1)

DA, Headquarters, 18th Engineer Brigade, APO 96377

TO: Commanding General, U.S. Army Vietnam, ATTN: AVHGC-DST, APO 96375

1. This headquarters has reviewed the Operational Report-Lessons Learned for the 84th Engineer Battalion (Construction) for the quarterly period ending 30 April 1968. The report is considered an excellent account of the Battalion's activities for the reporting period.

2. This headquarters concurs with the observations and recommendations of the Battalion Commander.

FOR THE COMMANDER:



DOUGLAS K. BLUE  
Colonel, CE  
Deputy Commander

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AVHGC-DST (14 May 68) 3d Ind

CPT Arnold/dls/LBN 4485

SUBJECT: Operational Report of 84th Engineer Battalion (Construction)  
for Period Ending 30 April 1968, RCS CSFOR-65 (R1)

HEADQUARTERS, US ARMY VIETNAM, APO San Francisco 96375

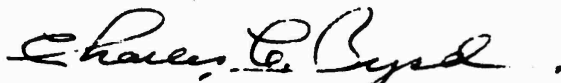
16 JUN 1968

TO: Commander in Chief, United States Army, Pacific, ATTN: GPOP-DT,  
APO 96558

1. This headquarters has reviewed the Operational Report-Lessons Learned for the quarterly period ending 30 April 1968 from Headquarters, 84th Engineer Battalion (Construction).

2. Concur with report as submitted.

FOR THE COMMANDER:



CHARLES A. BYRD

Major, AGC

Assistant Adjutant General

Cy furn:

HQ 18th Engr Bde

HQ 84th Engr Bn (Const)

14  
GPOP-DT (14 May 68) 4th Ind


SUBJECT: Operational Report of HQ, 84th Engr Bn (Const) for Period  
Ending 30 April 1968, RCS CSFOR-65 (R1)

HQ, US Army, Pacific, APO San Francisco 96558 19 JUN 1968

TO: Assistant Chief of Staff for Force Development, Department of the  
Army, Washington, D. C. 20310

This headquarters has evaluated subject report and forwarding indorse-  
ments and concurs in the report as indorsed.

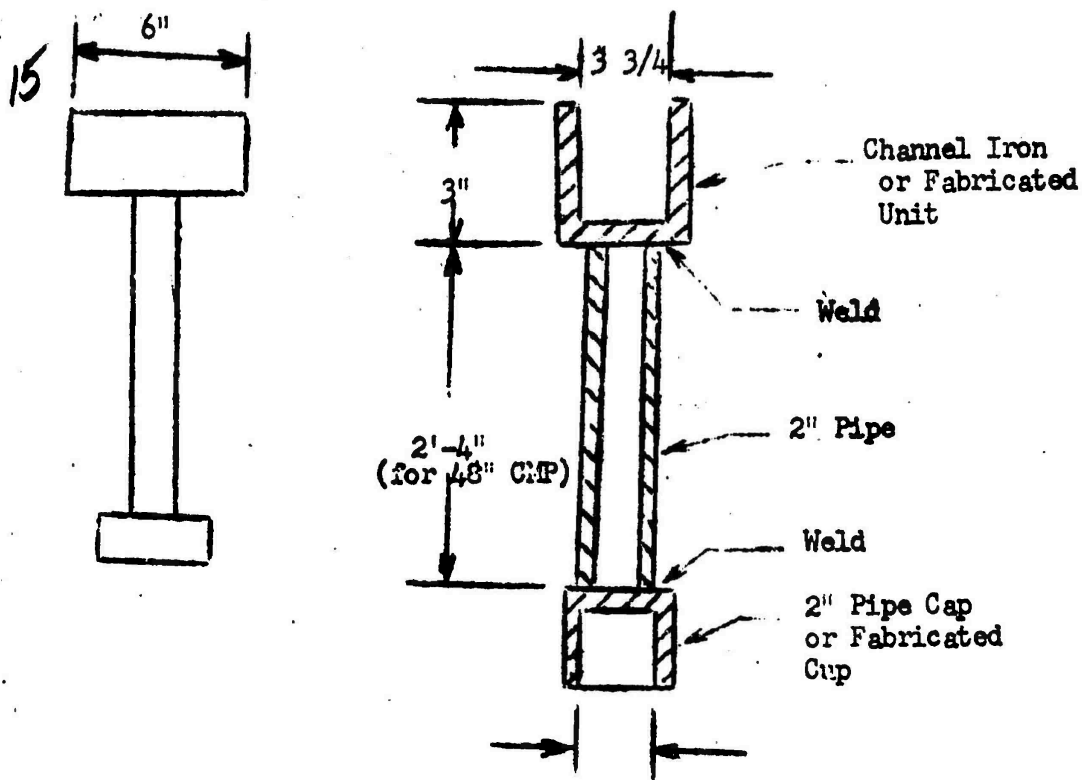
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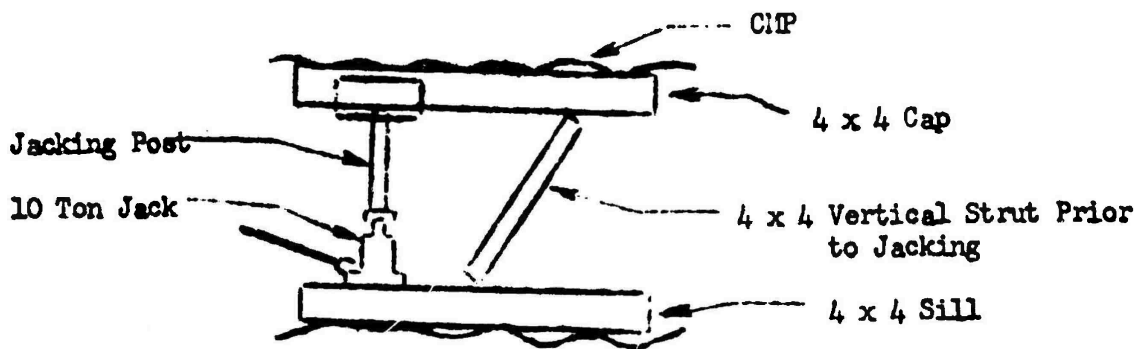
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Experiences of unit engaged in counterinsurgency operations. 1 Feb - 30 Apr 1968

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CO, 84th Engineer Battalion

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13. ABSTRACT